RESPONSE UNDER 37 CFR § 1.116 – EXPEDITED PROCEDURE

Serial Number: 09/216378

Filing Date: December 18, 1998

Title:

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NOISE REDUCTION SCHEME FOR A COMPUTER SYSTEM

## IN THE CLAIMS

- (Original) A personal computer comprising: 1.
  - a microphone for detecting ambient noise;
- a noise cancellation module coupled to the microphone that generates a noise cancellation signal responsive to the detected ambient noise; and
- a digital signal processor for mixing the noise cancellation signal with an audio signal provided from a desired source for provision to an audio output connection.
- 2. (Previously Amended) The personal computer of claim 1 and further comprising an optical disc drive for providing the audio signal.
- 3. (Previously Amended) The personal computer of claim 1 wherein the noise cancellation module comprises a software program running on a processor.
- (Previously Amended) The personal computer of claim 1 wherein the microprocessor is 4. the central processing unit for the computer system.
- (Previously Amended) The personal computer of claim 1 wherein the digital signal 5. processor is located on a sound board.
- 6. (Previously Amended) The personal computer of claim 1 wherein the audio output connection is compatible with a standard set of headphones.
- 7. (Previously Amended) The personal computer of claim 1 wherein the computer system is a mobile computer.
- 8. (Original) A method of reducing ambient noise normally heard by a user through headphones when listening to audio provided via a mobile computer system, comprising:

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detecting the ambient noise;

generating a noise cancellation signal based on the detected ambient noise; and mixing the noise cancellation signal with the audio from the compact disc, wherein the mixed signal is applied to the headphones.

- 9. (Original) The method of claim 8 and further comprising converting the detected ambient noise to an electrical signal.
- 10. (Original) The method of claim 8 wherein detecting the ambient noise is performed using a built-in microphone within the mobile computer system.
- 11. (Original) The method of claim 8 wherein generation of the noise cancellation signal is done when the optical disc drive is active.
- 12. (Original) The method of claim 8 wherein generation of the noise cancellation signal is initiated manually via a software interface.
- 13. (Original) A machine readable medium having machine readable instructions stored thereon for causing a computer to perform the steps comprising:

detecting environmental background noise;

converting the detected environmental background noise into an electrical signal;

generating a noise cancellation signal based on the electrical signal; and

mixing the noise cancellation signal with an audio signal for provision to an audio output connection.

- 14. (Original) The machine readable medium of claim 13 wherein the step of generating a noise cancellation signal is performed automatically when the optical disc drive is active.
- 15. (Original) The machine readable medium of claim 13 wherein the step of generating a noise cancellation signal is activated through a software interface.

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16. (Original) A personal computer comprising:

a microprocessor;

memory coupled to the microprocessor;

- a storage device coupled to the microprocessor;
- a microphone for detecting ambient noise;
- a noise cancellation module coupled to the microphone that generates a noise cancellation signal responsive to the detected ambient noise; and
- a digital signal processor for mixing the noise cancellation signal with an audio signal provided from a desired source for provision to an audio output connection.
- 17. (Original) The personal computer of claim 16 and further comprising an integrated display device.
- 18. (Original) The personal computer of claim 17 wherein the personal computer comprises a mobile computer system having an integrated source of power.
- 19. (Original) The personal computer of claim 16 wherein the noise cancellation module is part of the microprocessor.
- 20. (Original) The personal computer of claim 17 wherein the personal computer comprises a mobile computer system and the noise cancellation module is provided by the microprocessor.
- 21. (Original) The personal computer of claim 1 wherein the audio source comprises a compact disc playing game or music sounds.
- 22. (Original) The personal computer of claim 1 wherein the noise cancellation signal is mixed with the audio signal to cancel ambient noise such that the audio signal is audible through a speaker coupled to the audio output connection.

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(Original) The method of claim 8 wherein the audio from the compact disc comprises 23. music.

- 24. (Previously Added) A mobile computer comprising:
  - a microphone integrated into the mobile computer for detecting ambient noise;
- a noise cancellation software module coupled to the microphone that generates a noise cancellation signal responsive to the detected ambient noise, and having a profile for compensating for keyboard key clicks detected by the microphone; and
- a digital signal processor for mixing the noise cancellation signal with an audio signal provided from a desired source for provision to an audio output connection for a standard headset.
- 25. (Previously Added) The mobile computer of claim 24 wherein the audio output connection comprises an analog output port.
- 26. (Previously Added) The mobile computer of claim 25 and further comprising a digital to analog converter coupled between the digital signal processor and analog output port.
- 27. (Previously Added) The mobile computer of claim 24 wherein the noise cancellation signal is generated when a source of audio output is activated.
- (Previously Added) The personal computer of claim 6 wherein said microphone is a 28. built-in microphone of said personal computer.
- 29. (Previously Added) The personal computer of claim 28 wherein said noise cancellation module generates the noise cancellation signal based on said ambient noise, said noise cancellation signal being generated in a format suitable to reduce headphone noise in the standard set of headphones connected via the audio output connection.

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30. (Previously Added) The personal computer of claim 29 wherein said headphone noise comes from a same source as said ambient noise.